U.S. EPA Scientific Integrity Program

Determination regarding Allegation concerning a 2006 EPA-funded Report on Galvanic Corrosion September 15, 2015

Background

The U.S. Environmental Protection Agency (EPA) is dedicated to preserving the integrity of the scientific and scholarly activities it conducts and that are conducted on its behalf. The EPA Scientific Integrity Policy, dated February 2012, provides principles and standards to ensure scientific integrity in the use, conduct, and communication of science. The Policy applies to EPA employees, contractors, and grantees. When this Policy is not adhered to, or is circumvented, the robustness of EPA science and the trust in the results of our scientific work can be impacted, causing a loss of scientific integrity. Loss of scientific integrity is the result of a deliberate action by an employee that compromises the conduct, production, or use of scientific and scholarly activities and assessments. EPA does not tolerate loss of integrity in the performance of scientific and scholarly activities or in the application of science in decision making.

Allegation

alleged that EPA contractors engaged in scientific misconduct in preparation of a research report entitled, "Effects of External Currents and Dissimilar Metal Contact on Corrosion from Lead Service Lines." The report was prepared by Dr. Steve Reiber, Formerly of HDR Engineering, and Laura Dufresne of The Cadmus Group, Inc., and finalized in November 2006. asked that EPA Region 3 either retract the 2006 study from the EPA Region 3 website or qualify the study's conclusions.

Conclusion of EPA's Scientific Integrity Program Review

EPA has reviewed the allegation. As a result of the review, EPA will attach the following statement to the report entitled, "Effects of External Currents and Dissimilar Metal Contact on Corrosion from Lead Service Lines," which was published in 2006:

EPA does not have the data, a Quality Assurance Project Plan, or a Quality Management Plan associated with this 2006 report. Readers are cautioned that other research has not reached the same conclusion as the report and the Science Advisory Board (SAB) has discussed reasons for the discrepancy. When asked to comment on whether partial lead service line replacement (PLSLR) might cause elevated lead levels at the tap due to galvanic corrosion, the SAB concluded that:

The number of studies to examine the ability of PLSLR to reduce lead exposure is small and those studies have major limitations (small number of samples, limited follow-up sampling, lack of information about the sampling data, limited comparability between studies, etc.). Overall the SAB finds that, based on the current scientific data, PLSLRs have not been shown to reliably reduce drinking water lead levels in the short term,

ranging from days to months, and potentially even longer. Additionally, PLSLR is frequently associated with short-term elevated drinking water lead levels for some period of time after replacement, suggesting the potential for harm, rather than benefit during that time period. Available data suggest that the elevated tap water lead levels tend to then gradually stabilize over time following PLSLR at levels both above and below those observed prior to PLSLR.

More information can be found in the Science Advisory Board report at: http://yosemite.epa.gov/sab%5Csabproduct.nsf/964CCDB94F4E6216852579190072606F/5File/EPA-SAB-11-015-unsigned.pdf